

**PATENT****DOCKET NO.:** FCI-2582/C2405**Application No.:** 09/638,119**Office Action Dated:** November 7, 2003

This listing of claims will replace all prior versions, and listings, of claims in the application.

**Listing of Claims:**

1. (Previously Presented) An electrical connector system, comprising:  
an electrical connector adapted to receive a mating connector, wherein said electrical connector comprises an electronic card connector and wherein said electronic card connector includes a conductive cover having an aperture therein; and  
a temperature sensor on said electrical connector positioned to detect a surface temperature of the mating connector when said mating connector is received in said electrical connector and positioned to allow insertion and removal of said mating connector to and from said electrical connector, said temperature sensor extending into said aperture.
2. (Original) The electrical connector system as recited in claim 1, wherein the electrical connector includes an opening for receiving the mating connector, said temperature sensor extending into said opening.
3. – 4. (Canceled)
5. (Previously Presented) The electrical connector system as recited in claim 1, wherein said cover includes a tab associated with said aperture, said temperature sensor mounted to said tab.
6. (Original) The electrical connector system as recited in claim 5, further comprising an eject mechanism for extracting the mating connector.
7. (Original) The electrical connector system as recited in claim 6, wherein said temperature sensor remains a distance away from said eject mechanism.
8. (Original) The electrical connector system as recited in claim 1, further comprising a flexible circuit, said temperature sensor mounted to said flexible circuit.

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9. (Previously Presented) An electrical connector for an electronic card, comprising:  
a header;  
a frame associated with said header to guide the electronic card into engagement with said header;  
a temperature sensor positioned to detect a surface temperature of the electronic card when said electronic card is engaged in said header, said temperature sensor and positioned to allow engagement and removal of said electronic card with and from said header; and  
a cover over said header and said frame, said cover including an aperture therein to receive said temperature sensor.
10. (Canceled)
11. (Previously Presented) The electrical connector as recited in claim 9, wherein said cover includes a tab associated with said aperture, said temperature sensor mounted to said tab.
12. (Original) The electrical connector as recited in claim 9, further comprising an eject mechanism for extracting the electronic card.
13. (Original) The electrical connector as recited in claim 12, wherein said temperature sensor remains a distance away from said eject mechanism.
14. (Original) The electrical connector system as recited in claim 9, further comprising a flexible circuit, said temperature sensor mounted to said flexible circuit.
15. (Original) The electrical connector system as recited in claim 14, wherein said flexible circuit extends along said frame.
16. (Previously Presented) An electrical connector system for an electronic card, comprising:

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an electrical connector, wherein said electrical connector comprises an electronic card connector and wherein said electronic card connector includes a conductive cover having an aperture therein;

a frame associated with said electrical connector;

a temperature sensor positioned to detect a surface temperature of the mating connector when said mating connector is inserted in said electrical connector, said temperature sensor positioned to allow insertion and removal of said mating connector with and from said electrical connector, said temperature sensor extending into said aperture; and

a transition board, said electrical connector and said temperature sensor connected to said transition board.

17. (Previously Presented) The electrical connector system as recited in claim 16, wherein said connector and said temperature sensor are discretely connected to said transition board.

18. (Original) The electrical connector system as recited in claim 16, further comprising a flexible circuit secure to said transition board, said temperature sensor mounted to said flexible circuit.

19. (Original) The electrical connector system as recited in claim 18, wherein said flexible circuit extends along said frame.

20. (Withdrawn) A method of monitoring a surface temperature of an electronic card in an electrical connector mounted to an electronic device, comprising the steps of:  
providing an electrical connector adapted to receive the electronic card;  
providing a temperature sensor mounted to the electrical connector;  
sensing the surface temperature of the electronic card; and  
transmitting the temperature of the electronic card to the electronic device.

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21. (Withdrawn) The method as recited in claim 20, wherein the electronic card communicates with the electronic device through the connector, said transmitting step independent of the communication between the connector and the electronic device.

22. (Withdrawn) The method as recited in claim 20, wherein the connector includes a transition board, said transmitting step occurring through the transition board.

23. (Withdrawn) A method of monitoring a temperature of an electronic card in an electrical connector electrically connected to an electronic device, comprising the steps of:  
providing an electrical connector adapted to receive the electronic card;  
providing a temperature sensor mounted to the electrical connector;  
sensing the temperature of the electronic card; and  
transmitting the temperature of the electronic card to the electronic device.

24. (Withdrawn) The method as recited in claim 23, wherein the electronic card communicates with the electronic device through the connector, said transmitting step independent of the communications between the connector and the electronic device.

25. (Withdrawn) The method as recited in claim 23, wherein the connector includes a transition board, said transmitting step occurring through the transition board.

26. (Previously Presented) The electrical connector system as recited in claim 1, wherein the temperature sensor is positioned to directly detect the surface temperature of the mating connector.

27. (Previously Presented) The electrical connector system as recited in claim 1, wherein the temperature sensor is positioned immediately adjacent the mating connector to detect the surface temperature of the mating connector.

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28. (Previously Presented) The electrical connector for an electronic card as recited in claim 9, wherein the temperature sensor is positioned to directly detect the surface temperature of the electronic card.

29. (Previously Presented) The electrical connector for an electronic card as recited in claim 9, wherein the temperature sensor is positioned immediately adjacent the electronic card to detect the surface temperature of the electronic card.

30. (Previously Presented) The electrical connector system for an electronic card as recited in claim 16, wherein the temperature sensor is positioned to directly detect the surface temperature of the mating connector.

31. (Previously Presented) The electrical connector system for an electronic card as recited in claim 16, wherein the temperature sensor is positioned immediately adjacent the mating connector to detect the surface temperature of the mating connector.

32. (Currently Amended) An electrical connector system, comprising:  
an electrical connector ~~that adapted to receives~~ a mating connector, wherein said electrical connector comprises a receptacle ~~that is capable of receiving~~ an electronic card and wherein said mating connector comprises an electronic card; and  
a temperature sensor on said electrical connector positioned to directly detect a temperature of the mating connector when said mating connector is received in said electrical connector and positioned to allow insertion and removal of said mating connector to and from said electrical connector.

33. (Currently Amended) An electrical connector system, comprising:  
an electrical connector ~~that adapted to receives~~ a mating connector, wherein said electrical connector comprises a receptacle ~~that is capable of receiving~~ an electronic card and wherein said mating connector comprises an electronic card; and  
a temperature sensor on said electrical connector positioned immediately adjacent the mating connector to detect a temperature of the mating connector when said mating

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connector is received in said electrical connector and positioned to allow insertion and removal of said mating connector to and from said electrical connector.

34-35. (Canceled).

36. (Previously Presented) The electrical connector system as recited in claim 18, wherein said flexible circuit comprises a flexible cable.

37. (Previously Presented) The electrical connector system as recited in claim 18, wherein said flexible circuit comprises a ribbon cable.

38. (Previously Presented) The electrical connector system as recited in claim 16, wherein said transition board comprises a plurality of holes and a plurality of corresponding connection points.

39. (Previously Presented) The electrical connector system as recited in claims 38, wherein said temperature sensor comprises a plurality of wires and each of said wires is disposed in one of said plurality of holes.